

REMARKS / ARGUMENTS

This letter is responsive to the Office Action mailed January 5, 2004.

As required by the Examiner the abstract of the disclosure has been amended to delete the phrases which can be implied as pointed out by the examiner. It is believed that the amendment to the disclosure is now in accordance with MPEP 608.01.

The Examiner is requested to accept a proposed drawing correction. The proposed drawing correction is shown on the corrected drawing and involved simple deletion of the numerals 27 and 29 as these numerals do not appear in the description. With this amendment the drawings and the description now coincide.

In paragraph 4 of the detailed action, the Examiner indicated that certain claims were rejected under 35 U.S.C. 112. Basically the rejection involves use of the plural word "crests" rather than the singular word "crest". The Examiner then indicated that if a simple correction were made then there would not be a line defined. Certain other rejections were made based on wording of claims 9 and 12 and similar objection appears to have been made with regard to the word "roots" which should also be a singular word.

Based on the Examiner's comments, applicant has amended the disclosure to make more clear what was intended to be referred to in the disclosure and what was referred to and illustrated in the drawings and disclosure as filed. On page 5 and following, all reference to the word "crests" has been replaced by reference to the singular word "crest" and all reference to the plural word "roots" has been amended to refer to the singular word "root" and any reference to the word "threads" has been replaced by the singular "thread". On page 7, line 15, "roots" has been replaced by "revolutions". At page 8, there has now been introduced an appropriate definition for the line which is now referred to as a "crest line" and that nomenclature has been used consistently wherever the numeral 62 appears throughout the text. At page 9, the line 64 shown in the drawings has been defined as being the intermediate portion crest line and that nomenclature has been used when referring to the line 64. The change to page 10 also uses the singular words "crest" and "root" and specifies that it is the crest line in

the intermediate and distal thread portions for further clarification. On page 12, a similar correction has been made so that the words which formerly read "threads 82" now reads "thread 82".

It is respectfully requested that all of these changes to the disclosure be permitted. The changes simply reflect what is clearly shown on the drawings as originally filed and are consistent with the ordinary interpretation of the disclosure as filed. As such, the requested changes to the disclosure do not introduce any new matter and entry of these changes is respectfully requested.

In paragraph 5, the examiner suggested certain changes to claims 6 and 13 and those changes have been incorporated in amended claims 6 and 13 as amended in this response.

The Examiner rejected certain claims under 35 U.S.C. 102 in view of Klardie, U.S. 6,048,204.

In view of the Examiner's remarks, claim 1 has been amended to more clearly distinguish over Klardie. In particular, claim 1 has been amended to define that the dental implant has an axis and that the cutting edge referred to in claim 1 extends radially outwardly from the axis. The functional language has been included explaining that upon rotation of the implant in a patient's jaw the implant is self-drilling and self-tapping.

It is respectfully submitted that this completely distinguishes this invention over Klardie. Klardie is a self-tapping device which is intended to be installed in a bore which is pre-existing. This is clear in Klardie, see for example, column 1, line 21, which refers to the implant being installed by using a number of drill bits to increase the hole to the minor diameter of the threaded implant followed by a tap. The Klardie invention shows a self-tapping implant.

At column 3, commencing at line 19, Klardie specifies that "the implant is intended to be inserted in a bored hole in the jaw for permanent anchoring of artificial teeth, tooth-bridges and other dental implants".

Klardie teaches the use of a cutting face 137 with a cutting edge 141. The cutting edge 141 as shown in Figure 4 extends generally axially along what Klardie refers to as a concave part.

As clearly shown in figures 1, 2, 3 and 4, the bottom face of the Klardie implant is substantially planar and presents a flat surface which extends axially from the axis 110 radially outwardly to define what is essentially a planar, circular surface. That surface is not capable of boring a hole as there is no cutting surface in Klardie which would make the hole large enough to accommodate that circular face. Instead, Klardie intends his device to be inserted in a prebored hole which presumably is at least as large as that circular face. As set out in column 4, commencing at line 2, Klardie indicates that there is an angle α which is provided to facilitate insertion of the implant into the bored hole. This again confirms that the Klardie implant is not capable of boring the necessary hole, only self-tapping.

In claim 1 as revised in this response, it has been made more clear that the implant as claimed includes a cutting edge which extends radially outwardly. The claim further specifies that that cutting edge extends from the axis. This completely distinguishes the structure as claimed from what is illustrated and taught on any fair reading of the Klardie patent, which clearly does not have a cutting edge which extends from the axis.

In view of all of the foregoing, it is respectfully submitted that claim 1 as amended clearly distinguishes over Klardie. All remaining claims of the present application depend directly or indirectly from claim 1 and the above remarks therefore apply to all other claims.

The examiner made certain remarks in respect of claim 12 as filed. The examiner has indicated that Klardie shows a cutting edge which extends from the axis radially outwardly to a cutting edge. It is respectfully submitted that the Examiner is incorrect in this statement. Klardie does not have a cutting edge which extends from the axis. It is respectfully submitted that the structure of Klardie is fundamentally different from and need not address the issue which is addressed by the more narrow claims of the present application. It is respectfully submitted that the intent of the Klardie patent is to

drill a bore hole so that the amount of material that must be cut as the implant self-taps its way into the bone is minimized. At column 5, line 39, Klardie provides that "The total volume of the cavities is sufficient to accommodate the bone tissue that has been scraped, although in the embodiment shown in the figures, at least some of the bone material will escape out the bottom of the cavity and further into the bore hole". This passage also makes it quite clear that the bore hole extends deeper into the jaw than the implant with the intent that material removed by Klardie's cutting edge remains either in the relieved area or is pushed further into the hole. This of course is not possible with a device that is self-boring as there would be no additional hole below the implant into which bone material can pass. When making a hole into the jaw, care must be taken as to the amount of material which is removed in any one pass. Klardie refers to making a series of ever enlarged bore holes (see column 1, line 23). The issue dealt with by the structure specifically enumerated in claim 12 relates to the amount of compression that occurs and which is shown in the present application by the dimension indicated at 49 in Figure 1. Claim 12 addresses that structure and it is respectfully submitted that there is nothing whatever in Klardie that addresses that issue or which meets the structural claim language set out in claim 12.

With respect to claims 13 and 14, the Examiner has made the suggestion that although Klardie does not show the ratio as specified, this would be an obvious matter of choice to one having ordinary skill in the art. It is respectfully submitted that nothing of the sort is apparent from Klardie. The whole teaching of Klardie is that one should first drill a hole using a series of drills of expanding diameter so as to make the necessary bore and then to tap that bore. Klardie does not have anything in it which suggests how one should go about using a self-boring, self-tapping implant, and thus does not address or lead the skilled person to address the issue discussed and claimed in the application and claims 13 and 14.

The Examiner has indicated in the claim rejections based on 35 U.S.C. 103, that it is possible to combine Klardie with Day. The Examiner concedes that Klardie does not show "smooth" surfaces. It is the apparent position of the Examiner that Day teaches such surface treatment. It is respectfully submitted that on a fair reading of any

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combination of Day with Klardie, one would still be left with a self-tapping implant not a self-boring, self-tapping implant and that the combination of Day with Klardie does not teach any of the major issues discussed in the present application.


In view of all of the above comments, it is respectfully submitted that all of claims 1 through 14 as amended hereby patentably distinguish over Klardie, the combination of Klardie and Day, or any other reference referred to by the Examiner in the report.

Allowance of this application is respectfully requested.

In the enclosed Petition for Extension of Time, we have paid the necessary fees for an extension of time of two months to respond to the examiner's action.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,
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